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Lead In Fish Poses Threat In Big River

By Martha Shirk
Of the Post-Dispatch Staff

Some fish in the Big River one of the most popular fishing streams in Missouri have such high concentrations of lead that state officials may have to bar anglers from a 35-mile stretch

In addition the contamination has clouded plans of the Army Corps of Engineers to dam the river near Cedar Hill in Jefferson County to create Pine Ford Lake

The National Fishery Research Laboratory is determining whether the contamination would interfere with use of the lake for recreation and drinking water

The trigger for the state s concern is new data on lead A sample of black redhorse suckers recently analyzed routinely by the state Conservation Department showed a concentration 30 times higher than normal

The state has asked federal and state health authorities to find out whether the fish pose a health threat Too much lead in one s diet can cause nervous disorders blood illnesses and kidney disease Children a e more susceptible than adults

State officials say th contamination results from a 3-year-old water pollution problem near Desloge about 5 miles southwest of St Louis

In the spring of 1977 a heavy storm destroyed a dike holding back millions of cubic yards of lead mine tailings or sandlike residues from mining on 500 acres adjoining the river

Since then a state consultant says at least 120 000 cubic yards of lead tailings have flown into the river More flows in each time it rains

Complicating any repair effort is a dispute over who should pay the cost estimated at $200 000 Some state officials believe the responsibility lies with St Joe Minerals Corp the mining company that deposited the tailings 30 years The firm says it is faultless

Others put the responsibility on the St Francois County Environmental Corp a non-profit company to which St Joe deeded the land in 1972 for use as a sanitary landfill The company s only asset tailings pile

But everybody agrees that the river has worst water pollution problem of any Ozark stream

You can t really understand the scope of the problem unless you ve seen it say John Novak professor of civil

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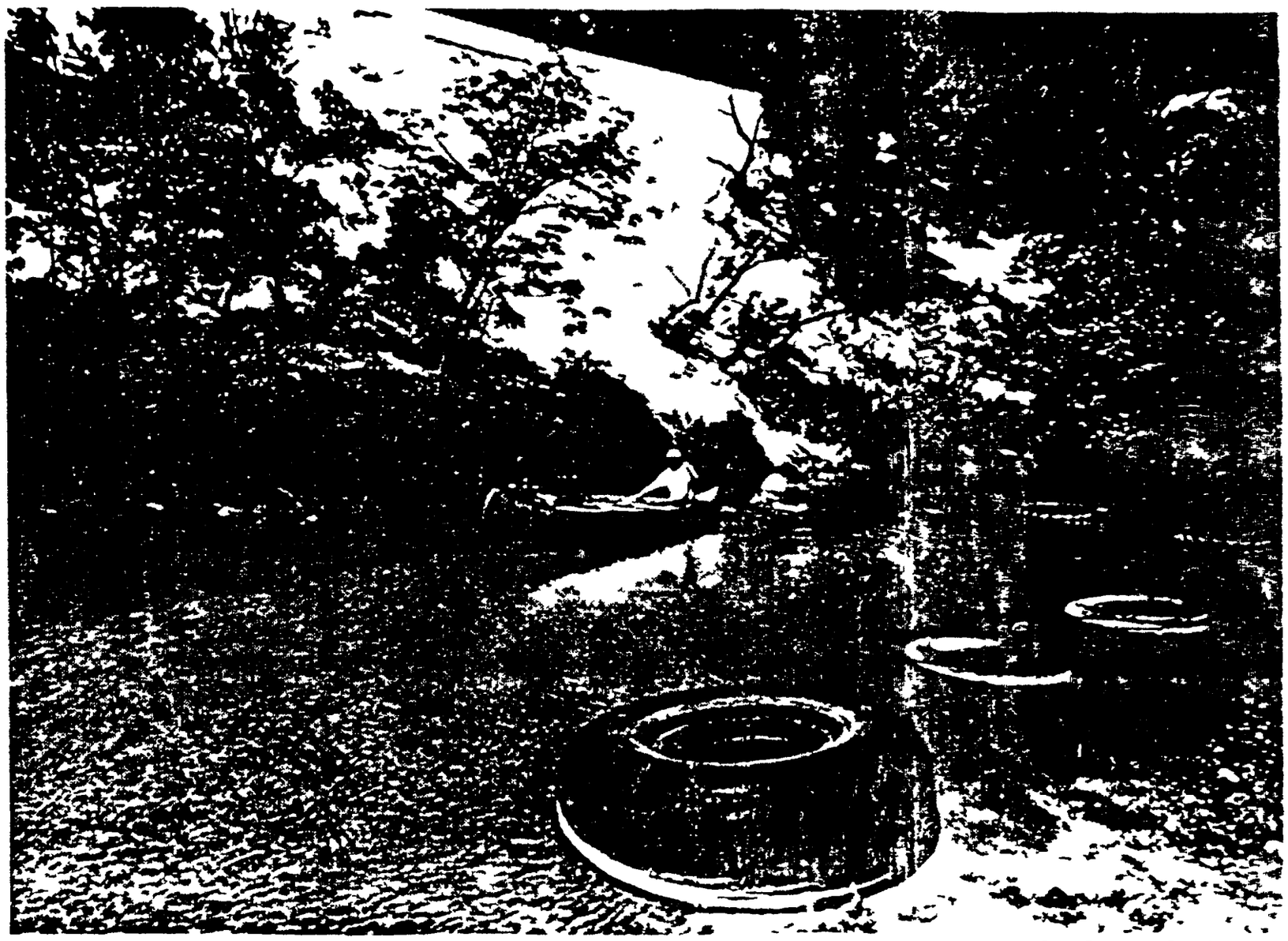

Gene Pospeshil/Post-Dispatch

The Big River contaminated with lead as a result of the runoff from mine tailings is also littered with trees and other materials that had been placed on the tailings pile to stem the runoff The stream is considered to have the worst pollution problem of all Ozark rivers

engineering at the University of Missouri at Columbia and the state s consultant on fix up options

It s very very dramatic he said The pile of lead tailings looks like a large desert that goes on forever

James R Whitley supervisor of water quality research for the state Conservation Department call the situation just devastating It s one of the worst things I ve ever seen

The Big River is a slow flowing 141 mile-long st[illegible] that [illegible] east from Iron County through the heavily mined s[illegible] known as the Lead Belt and then northward until it enters the Meramec River near Eureka

It gets the most recreational use at Washington State Park about 45 miles southwest of St Louis Bu it is heavily fished from the park upriver to the source

A recent survey by the state Conservation Department found that 154 000 persons used the entire river during the la t four months of last year

George Fleener a research biologist at the department said the river draws five times as many anglers per mile as the Meramec River For all recreational uses it draws 43 percent more he said

From the 1930s until 1958 St Joe mined lead in the area and sent the tailings through a slurry pipeline to the refuse site They eventually covered almost a square mile and some places are piled 80 feet high

As long as St Joe owned the site a company spokesman said it was well maintained Tailings materials were used to build a dike around it and drains sent any runoff into nearby woods

Jack Krokroskia manager of the company s mining division said The area was in good condition and withstood the forces of nature up to the time we left

The St Francois County Environmental Corp was formed early in the 1970s to find an alternative to open dumps It gratefully accepted the tailings area and turned 80 acres of it into a solid waste landfill

The landfill group admits that it lacks the manpower to maintain the site

We have a full time staff of only three people and they re busy operating the landfill said Gayle Blackwell city manager of Bonne Terre and president of the group

We ve built some diversion dams to try to keep the surface run-off from going into the river As far as we re concerned there s no liability on our part

The failure of the dike in 1977 created a gorge that Novak says resembles the Grand Canyon only on a smaller scale In an attempt to stem erosion Blackwell s group dumped large tires and other solid waste into the gorge Now says the Conservation Department the waste is being washed into the river along with the tailings

The lead problem was discovered in connection with a routine study this summer of the water quality of the state s streams The Conservation Department collected fish samples from four areas of the river

Its biologists were stunned to find lead contaminated fish as far from the tailings pile as Washington State Park about 35 miles downstream

The highest concentrations were found in suckers caught three miles downstream from the site says James Czarnezki a water-quality research biologist

The mean concentration of lead in the suckers was about 30 times higher than that found in control samples 19 miles upstream Fifteen miles downstream the mean concentration also was about 30 times higher than normal Thirty five miles downstream it was 20 times higher

Suckers feed largely on the river s bottom where mu h of the escaped tailing. material has settled Smallmouth bass and sunfish also have been contaminated Czarnezki said although less severely because they are not bottom feeders

The bass and sunfish showed lead concentrations ranging up to three times normal near the site But levels were normal 35 miles downstream

Czarnezki says he would refuse to eat a fish caught downstream from the tailings pile So would Christopher Schmitt a biologist at the National Fishery Research Laboratory at Columbia Mo who is studying the problem

The laboratory has a contract from the Corps of Engineers to help evaluate the environmental impacts of the proposed Pine Ford Lak

We want to know where these metal residues are accumulating and how much of them are going to end up being trapped by the dam Schmitt said There are obvious implications for the lake s use

Novak studied the tailings pile over a four month period last summer He says $200 000 will be needed to fix the gorge and prevent further erosion

Removing the tailings pile altogether is out of the question because of its size Novak said He has not considered the cost of cleaning the river

Novak presented his findings last winter to the state s Clean Water Commission but no action was taken

Novak said he was disappointed that the commission had not even approved his recommendation for an interim solution that would have cost about $40 000 They would have been much better off to go the cheap route than to let it sit so long he said

If health authorities conclude that the lead level are harmful Conservation Department officials say they may have to close the contaminated stretch to fishermen or turn it into a catch-and return area

The department also is concerned about potentially adverse effects on birds and mammals that eat the contaminated fish

People only eat filets of the fish Whitley said but birds and mammals eat the digestive tract and the bones and everything else